Applicant requests favorable reconsideration and allowance of this application in view of the foregoing amendments and the following remarks.

Claims 1-6, 12-14, and 17-19 are pending in this application, with Claims 1, 7, 12, 15, 17 and 20 being independent.

Claims 7-11, 15-16 and 20-21 have been cancelled without prejudice. Claims 1, 3, 6, 12, 14, 17 and 19 have been amended. Applicant submits that support for the amendments can be found in the original disclosure, and therefore no new matter has been added.

Claims 1-21 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cosatto et al. (US Patent 6,118,887). Applicant respectfully traverses this rejection for the reasons discussed below.

As recited in independent Claim 1, the present invention includes, *inter alia*, the features of (i) spatiotemporally segmenting a video sequence to provide a sequence of associated two-dimensional segments, a first two-dimensional segment in the sequence of associated two-dimensional segments including facial features for tracking, (ii) identifying candidate facial features in a second two-dimensional segment in a second frame of a video sequence, the second two-dimensional segment being one of the sequence of associated two-dimensional segments, and (iii) verifying which of the candidate facial features correspond with the facial features for tracking. Since the facial features for tracking are included in a first two-dimensional segment of a sequence of associated two-dimensional segments, and since the identifying step identifies candidate facial features in a second two-dimensional segment that is one of the sequence of associated two-dimensional segments, the search space for candidate facial features is limited to the two-dimensional segments in the sequence of associated two-dimensional segments. This reduces the size of the search space and improves searching efficiency.

Applicant submits that the cited art fails to disclose or suggest at least the above-mentioned features of Claim 1. Cosatto et al. discloses a method for tracking heads and faces, which may operate on a single frame or a sequence of frames. Col. 4, lines 29-30. Each frame image is individually processed to identify areas which may contain head outlines and facial

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features. However, that reference does not disclose or suggest spatiotemporally segmenting a video sequence to provide a sequence of associated two-dimensional segments. Moreover, it does not disclose or suggest at least the feature of identifying candidate facial features in a second two-dimensional segment that is part of a sequence of two-dimensional segments associated with a two-dimensional segment including facial features to be tracked. Instead, Cosatto et al. teaches to process each frame in its entirety to identify areas which may contain head outlines and facial features and does not restrict the search space for identifying candidate facial features to a sequence of associated two-dimensional segments.

For the foregoing reasons, Applicant submits that the present invention recited in independent Claim 1 is patentable over the art of record. The other independent claims include features similar to the features of Claim 1 discussed above and are believed patentable for reasons similar to Claim 1.

The dependent claims are believed patentable for at least the same reasons as the independent claims, as well as for the additional features they recite.

Applicants' undersigned attorney may be reached in our Washington, D.C. office by telephone at (202) 530-1010. All correspondence should continue to be directed to our below-listed address.

Respectfully submitted,

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